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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,051	09/26/2003	W. Karl Olander	ATMI-622-CIP	7179

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ATMI, INC.
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DANBURY, CT 06810

EXAMINER

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,051

Applicant(s)

OLANDER ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 9-17 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over O' Halloran et al (5,972,060).

O' Halloran et al disclose a semiconductor manufacturing process facility requiring an air exhaust for its operation wherein the clean room has at least one semiconductor manufacturing tool therein (col. 1, line 33, lines 48-51) and wherein air exhaust is flowed through a clean room (col. 1, lines 62-65) and the facility comprising an air exhaust treatment apparatus arranged to receive air exhaust after flow thereof through the clean room and produce a treated air exhaust and recirculate the treated air exhaust to the ambient air environment (col. 3, lines 1-7 and lines 18-34). O' Halloran

Art Unit: 1724

et al further disclose the exhaust treatment apparatus comprising a chemical filter to remove contaminant species therefrom and an air filter to remove particulate material therefrom (col. 5, lines 53-64). O' Halloran et al also disclose the exhaust treatment apparatus including a gas monitor or sensor (col. 6, lines 52-67). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide an air exhaust treatment as taught by O' Halloran to provide an effective purification equipment for the semiconductor facility to allow removal of contaminants and to provide pure and impurity free airstream for the facility.

Claims 6-8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over O' Halloran et al (5,972,060), in view of Homeyer et al (6,280,691 B1).

Claims 6-8 and 18 call for a heat exchanger in the exhaust treatment apparatus to cool air exhausted flowed therethrough. Homeyer et al disclose a heat exchanger (20) in an air purification system (10). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a heat exchanger as taught by Homeyer et al in the air exhaust treatment of O' Halloran in order to cool down the air flow passing through (col. 2, lines 57-61).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Mizuno et al (6,284,020 B1) disclose a method of maintaining cleanliness of substrates.
- Chiesl (6,641,635 B1) discloses liquid based air filtration system.

Art Unit: 1724

- Larsson (6,080,060) discloses equipment for air supply to a room.
- Renz (6,358,139 B1) discloses a super-clean air device.
- Endo et al (4,549,472) disclose an environmental control device.
- Hashimoto (4,693,175) discloses a clean room system.
- Matsumoto (6,264,550 B1) discloses a clean room and method of remodeling clean room.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/672,051

Page 5

Art Unit: 1724



Minh-Chau Pham

Patent Examiner

Art Unit : 1724

December 16, 2004